# (19) World Intellectual Property Organization International Bureau





(43) International Publication Date 14 October 2004 (14.10,2004)

#### **PCT**

# (10) International Publication Number WO 2004/088934 A3

(51) International Patent Classification<sup>7</sup>: 12/28

H04L 12/56,

(21) International Application Number:

PCT/IB2004/001014

(22) International Filing Date: 25 March 2004 (25.03.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data: 03100901.2

4 April 2003 (04.04.2003) EP

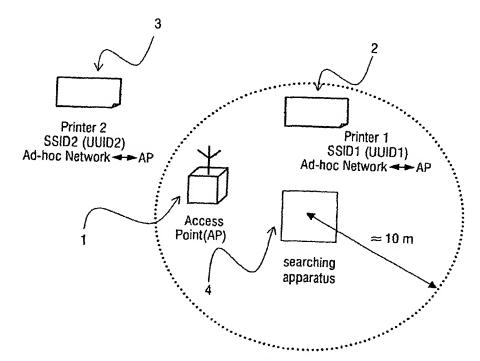
- (71) Applicant (for DE only): PHILIPS INTELLECTUAL PROPERTY & STANDARDS GMBH [DE/DE]; Steindamm 94, 20099 Hamburg (DE).
- (71) Applicant (for all designated States except DE, US): KONINKLIJKE PHILIPS ELECTRONICS N. V. [NL/NL]; Groenewoudseweg 1, NL-5621 BA Eindhoven (NL).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): ESPINA PEREZ,

Javier [ES/DE]; c/o Philips Intellectual Property & Standards GmbH, Weisshausstr. 2, 52066 Aachen (DE). FALCK, Thomas [DE/DE]; c/o Philips Intellectual Property & Standards GmbH, Weisshausstr. 2, 52066 Aachen (DE). MAASS, Henning [DE/DE]; c/o Philips Intellectual Property & Standards GmbH, Weisshausstr. 2, 52066 Aachen (DE).

- (74) Agent: VOLMER, Georg; Philips Intellectual Property & Standards GmbH, Weisshausstr. 2, 52066 Aachen (DE).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH,

[Continued on next page]

(54) Title: DISCOVERING PROXIMATE APPARATUSES AND SERVICES IN A WIRELESS NETWORK



(57) Abstract: A searching apparatus is put into the position of identifying the available apparatuses and services in its proximity in that an apparatus to be discovered periodically separates itself from its Access Point and builds up its own Ad hoc Network (AHN) which can be recognized via its Service Set Identifier (SSID) by the searching apparatus.



# WO 2004/088934 A3



GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

#### Published:

with international search report

(88) Date of publication of the international search report: 20 January 2005

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

## INTERNATIONAL SEARCH REPORT

Interise onal Application No PCT/IB2004/001014

A. CLASSIFICATION OF SUBJECT MATTER IPC 7 H04L12/56 H04L H04L12/28 According to International Patent Classification (IPC) or to both national classification and IPC B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) H04L IPC 7 Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Electronic data base consulted during the International search (name of data base and, where practical, search terms used) EPO-Internal, WPI Data, PAJ C. DOCUMENTS CONSIDERED TO BE RELEVANT Citation of document, with indication, where appropriate, of the relevant passages Relevant to claim No. WO 03/003610 A (NOKIA CORP; NOKIA INC Α 1-10 (US)) 9 January 2003 (2003-01-09) abstract page 2, line 21 - page 4, line 32 page 6, line 28 - page 9, line 8 page 18, line 2 - line 20 page 20, line 4 - line 20 page 22, line 24 - line 32 page 30, line 11 - page 31, line 30 page 34, line 11 - line 28 page 46, line 11 - line 14 figures 1.1A-1G figures 1,1A-1G X Further documents are listed in the continuation of box C. Patent family members are listed in annex. Special categories of cited documents: "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the "A" document defining the general state of the art which is not considered to be of particular relevance invention "E" earlier document but published on or after the International "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "Y" document of particular relevance; the claimed invention cannot be considered to involve an invention step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art. "O" document referring to an oral disclosure, use, exhibition or other means document published prior to the international filing date but later than the priority date claimed "&" document member of the same patent family Date of the actual completion of the international search Date of mailing of the international search report 24 September 2004 08/10/2004 Name and mailing address of the ISA Authorized officer European Patent Office, P.B. 5818 Patentlaan 2 NL – 2280 HV Rijswijk Tel. (+31–70) 340–2040, Tx. 31 651 epo ni, Fax: (+31–70) 340–3016 Alonso Maleta, J

# INTERNATIONAL SEARCH REPORT

Form PCT/ISA/210 (continuation of second sheet) (January 2004)

Intermedial Application No PCT/IB2004/001014

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT  Category Catation of document, with indication, where appropriate, of the relevant passages  A US 2002/184304 A1 (MEADE WILLIAM K ET AL) 5 December 2002 (2002-12-05) abstract paragraphs '0003!, '0004!, '0006!, '0007! paragraphs '0011!, '0012!, '0023!, '0028! - '0030! paragraphs '0033!, '0043! - '0045!, '0047!		Relevant to claim No.
US 2002/184304 A1 (MEADE WILLIAM K ET AL) 5 December 2002 (2002-12-05) abstract paragraphs '0003!, '0004!, '0006!, '0007! paragraphs '0011!, '0012!, '0023!, '0028! - '0030! paragraphs '0033!, '0043! - '0045!,		
5 December 2002 (2002-12-05) abstract paragraphs '0003!, '0004!, '0006!, '0007! paragraphs '0011!, '0012!, '0023!, '0028! - '0030! paragraphs '0033!, '0043! - '0045!.		1-10
paragraphs '0003!, '0004!, '0006!, '0007! paragraphs '0011!, '0012!, '0023!, '0028! - '0030! paragraphs '0033!, '0043! - '0045!.		
'0028! - '0030! paragraphs '0033!, '0043! - '0045!.		,
paragraphs '0033!, '0043! - '0045!, '0047!		
paragraphs '0055! - '0057!; figures 1A,2	·	
AGENTS IN AD HOC ENVIRONMENTS, 'Online! 23 August 2002 (2002-08-23), pages 1-16, XP002297920 Retrieved from the Internet: URL:http://www.fipa.org/docs/input/f-in-00 068/f-in-00068A.htm> 'retrieved on 2004-09-23! page 5, line 12 - line 40 page 7, line 2 - page 9, line 11 page 12, line 23 - line 50		6-8

### INTERNATIONAL SEARCH REPORT

information on patent family members

Intermonal Application No PCT/IB2004/001014

Patent document cited in search report		Publication date		Patent family member(s)	Publication date
WO 03003610	Α	09-01-2003	EP WO	1400031 A1 03003610 A1	24-03-2004 09-01-2003
US 2002184304	A1	05-12-2002	DE	10220891 A1	12-12-2002